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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/743520  
Filing Date: 12/19/2003  
Appellant(s): Calabria et al.

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Alan Brandt Atty  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief 4/22/11 appealing from the Office action mailed 12/22/10.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal patent application, however, U.S. Application Serial No. 10741336 , which contains a common detailed description with the above-identified patent application, is also on appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

<b>2003/0105677</b>	<b>Skinner</b>	6-2003
<b>2003/0055816</b>	<b>Paine</b>	3-2003
<b>2004/0093296</b>	<b>Phelan</b>	5-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims. This is a substantially accurate copy of the final rejection mailed 12/22/2010.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-21, 23-52 and 55-60 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**Regarding claims 1-21, 23-30, 40-52, 55-56, and 58-60** based on Supreme Court precedent, a method/process claim must (1) be tied to a particular machine or apparatus (see at least *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876)) or (2) transform underlying subject matter (such as an article or materials) to a different state or

thing (see at least *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972)). A method or process claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter. Here the claims fails to meet the above requirements because the steps are neither tied to a particular machine or apparatus nor physically transform underlying subject matter (such as an article or materials) to a different state or thing.

**Regarding claims 31-39**, these claims recite an apparatus that appears to comprise merely software modules that are not clearly embodied on a computer readable medium. However, this is just descriptive material (e.g. software), which is non-statutory under 35 USC 101. MPEP 2106.01 states that “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. This descriptive material is non-statutory when claimed as descriptive material *per se*. When functional descriptive material is recorded on a computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

**Claims 40-41 are rejected under 35 U.S.C. 102 (e) as being anticipated by US Patent Application Publication Number 2003/0105677 by Skinner (hereinafter "Skinner").**

**Regarding claim 40, Skinner** discloses

- a) selecting at least one candidate advertisement associated with an advertiser for subsequent placement in at least one publisher web page (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43, referred to as search terms related to an advertiser's service or product and linked to web site, for placement in a search engine web page);
- b) selecting a plurality of candidate publisher web pages, wherein each candidate publisher web page is associated with one or more candidate advertisement selected in a) and includes one or more auctioned advertisement positions (figure 2 #42-44, figure 3 #78, page 1 paragraph 12 and page 3 paragraph 39-40, referred to as search terms related to an advertiser's service or product and linked to web site, for placement in multiple search engine web pages);

- c) creating an advertisement-publisher web page pair for each candidate advertisement selected in a) and each candidate publisher web page selected in b) (figure 2 #42-44, figure 3 #78, page 1 paragraph 12 and page 3 paragraph 39-40, referred to as search terms related to an advertiser's service or product and linked to web site, for placement in multiple search engine web pages);
- d) estimating a click-through rate for each advertisement-publisher web page pair created in c) (page 3 paragraph 43);
- e) calculating a return on advertising investment (ROAI) for each advertisement-publisher web page pair created in c) based at least in part on the corresponding click-through rate estimated in d) (page 4 paragraph 44-60);
- f) calculating an optimized bid for each advertisement-publisher web page pair created in c) based at least in part on the corresponding ROAI calculated in e) (page 4 paragraph 44-48, referred to as calculated max bid); and
- g) automatically submitting the optimized bids for each advertisement-publisher web page pair to the competitive bidding process for placement of each candidate advertisement selected in b) (page 2 paragraph 14 -20).

**Regarding claim 41,** Skinner discloses

tracking the advertisement-publisher web page pair at the time a user clicks on the corresponding advertisement in the corresponding publisher web page (page 3 paragraph 37-43);

tracking a revenue event and corresponding revenue amount associated with sales through an advertiser web site associated with the corresponding publisher web page (page 3 paragraph 37-43); and associating the tracked advertisement-keyword pair clicks with the tracked revenue events and corresponding revenue amounts (page 3 paragraph 37-43).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-21, 23-39, 42-52, 55- 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication Number 2003/0105677 by Skinner (hereinafter “Skinner”) in view of US Patent Application Publication Number 2003/0055816 by Paine.**

**Regarding claims 1 and 57, Skinner** discloses

a) selecting at least one candidate advertisement associated with an advertiser for subsequent placement in search results lists (page 2 paragraph 14, advertisement referred to as keyword or search term used to market advertiser's product in online media marketing (OMM));



- b) selecting an initial plurality of candidate keywords (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43, referred to as search terms related to an advertiser's service or product and linked to web site);
- d) creating an advertisement-keyword pair for each candidate advertisement and each candidate keyword, wherein each advertisement-keyword pair includes one or more keywords of the expanded plurality of candidate keywords (page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine);
- e) estimating a click-through rate for each advertisement-keyword pair (page 3 paragraph 43);
- f) calculating a return on advertising investment (ROI) for each advertisement-keyword pair based at least in part on a click-through rate for each advertisement-keyword pair (page 4 paragraph 44-48, referred to as calculated max bid);
- g) calculating an optimized bid for each advertisement-keyword pair created in d) based at least in part on the corresponding ROI calculated in f (page 4 paragraph 44-60); and
- h) automatically submitting the optimized bids for each advertisement-keyword pair to the competitive bidding process for placement of each candidate advertisement in search results lists generated in response to search queries comprising at least one keyword of the expanded plurality of candidate keywords (page 2 paragraph 14 -20, page 3 paragraph 37-

39, advertisement-keyword pair referred to as search term paired with advertiser's listing, for search engine). Skinner does not explicitly disclose c) expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement. However, Paine discloses expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4).

**Regarding claim 2,** The system of Skinner may be used multiple times and for multiple keywords.

**Regarding claim 3,** Skinner discloses keywords based at least in part on information provided by the advertiser ( figure 3 #50, page 3 paragraph 37-43).

**Regarding claim 4,** Skinner does not explicitly disclose wherein the expanded plurality of candidate keywords are automatically generated at

least in part based at least in part from the initial plurality of candidate keywords which is based at least in part on information provided by the advertiser. However, Paine discloses wherein the expanded plurality of candidate keywords are automatically generated at least in part based at least in part from the initial plurality of candidate keywords which is based at least in part on information provided by the advertiser (figure 10 #1002-1014, page 32 paragraph 93-94 ). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner so the expanded plurality of candidate keywords are automatically generated at least in part based at least in part from the initial plurality of candidate keywords which is based at least in part on information provided by the advertiser. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser is a good place to start.

**Regarding claims 5-6,** Skinner does not explicitly disclose keywords automatically generated based at least in part from content in an advertiser web site. However, Paine discloses keywords automatically generated based at least in part from content in an advertiser web site (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner so

keywords are automatically generated based at least in part from content in an advertiser web site. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claims 7 and 32,** Skinner does not explicitly disclose keywords automatically generated based at least in part from two or more of at least one keyword provided by the advertiser, content in an advertiser web site, and content of the at least one candidate advertisement. However, Paine discloses keywords automatically generated based at least in part from two or more of at least one keyword provided by the advertiser, content in an advertiser web site, and content of the at least one candidate advertisement (figure 10 #1002-1014, page 32 paragraph 93-94). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner so keywords are automatically generated based at least in part from two or more of at least one keyword provided by the advertiser, content in an advertiser web site, and content of the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the

advertiser's web site, and the advertiser provided keywords are good places to start.

**Regarding claim 8**, Skinner discloses the click-through rate for each advertisement-keyword pair is estimated by placing the corresponding candidate advertisement in the search results list on a trial basis (page 3 paragraph 38-39 and 43, referred to as a given period of time, day month, or year).

**Regarding claim 9**, Skinner discloses the click-through rate for each advertisement-keyword pair is estimated based at least in part on the relevance of content in the corresponding candidate advertisement to the keywords for the corresponding advertisement-keyword pair (page 3 paragraph 37-44).

**Regarding claim 10**, Skinner discloses the estimated click-through rate for each advertisement-keyword pair is periodically revised based on actual search queries, search results lists, and click-throughs corresponding to the advertisement-keyword pair (referred to as a continuous function pair (page 3 paragraph 37-43).

**Regarding claims 11 and 33**, Skinner discloses tracking the advertisement-keyword pair at the time a user clicks on the corresponding advertisement in the search results list (page 3 paragraph

37-43); tracking a revenue event and corresponding revenue amount associated with sales through an advertiser web site associated with the search results list (page 3 paragraph 37-43); and associating the tracked advertisement-keyword pair clicks with the tracked revenue events and corresponding revenue amounts (page 3 paragraph 37-43).

**Regarding claim 12**, Skinner discloses wherein tracking the advertisement-keyword pair is accomplished at least in part by using one or more of a tracking URL, a form, and a cookie (page 3 paragraph 41).

**Regarding claim 13**, Skinner discloses the revenue event includes at least one of a sale, a lead generation, and a form submission (page 3 paragraph 41).

**Regarding claims 14 and 16**, Skinner discloses the revenue event and corresponding revenue amount are stored in a database associated with the advertiser web site (figure 2, page 3 paragraph 41).

**Regarding claim 15**, Skinner discloses an image bug is placed on the advertiser web site and the revenue event and corresponding revenue amount are stored in a service provider web site (figure 2, page 3 paragraph 41).

**Regarding claims 17-18 and 34**, Skinner discloses tracked advertisement-keyword pair clicks and tracked revenue events and revenue amounts are received by web services (figure 2 page 3 paragraph 41-43).

**Regarding claims 19 and 35**, Skinner discloses considering the relevance of the advertiser web site to the advertisement-keyword combination (page 5 paragraph 62).

**Regarding claims 20 and 36**, Skinner discloses considering an experience level in a user associated with submission of the search query and selection of an advertisement in the corresponding search results list, wherein the experience level is in relation to at least one of the advertisement in the advertisement-keyword combination, the keyword in the advertisement-keyword combination, the advertiser, the advertiser web site, products associated with the advertiser, and services associated with the advertiser (figure 2 page 3 paragraph 41-43, referred to as prior visits and purchases from advertiser web site).

**Regarding claim 21**, Skinner discloses calculating ROAI based at least in part on information received from the advertiser ( figure 3 #50, page 3 paragraph 37-43).

**Regarding claims 23 and 37**, Skinner discloses optimized bids calculated in q) are optimized based at least in part on optimization of ROAI for at least one of the candidate advertisement and the one or more candidate keywords associated with the corresponding advertisement-keyword pair (abstract).

**Regarding claims 24 and 38**, Skinner discloses recommending an optimal set of bid combinations with respect to profitability for the advertiser creating a corresponding automatic insertion order for placing the advertisement-keyword combinations ((abstract).

**Regarding claims 25 and 39**, Skinner discloses bid combinations is sorted by a product of the click-through rate and ROAI and insertion orders are placed in the sorted order (page 4 paragraph 44-47 and 58).

**Regarding claims 26-27**, Skinner discloses that the advertiser constrains the set of bid combinations by at least one of an advertisement budget, maximum budget, and a capacity budget (page 2 paragraph 14 and 18, referred to as staying under the maximum bid amount desired for each item, and controlling advertising budget).

**Regarding claim 28**, Skinner discloses an advertiser constraint is a desired number of click-through for a predetermined period of time (page 3 paragraph 43 and page 4 paragraph 54-60).



**Regarding claim 29**, Skinner discloses the advertiser constraint is at least one of a multiplier of ROAI and a desired profit margin with respect to ROAI (page 4 paragraph 51-60).

**Regarding claim 30**, Skinner discloses the advertiser constraint is at least one of a maximum budget amount for a predetermined period of time, a desired number of click-throughs for a predetermined period of time, a multiplier of ROAI, and a desired profit margin with respect to ROAI ((page 3 paragraph 43 and page 4 paragraph 51-60).

**Regarding claim 31**, Skinner discloses an advertisement selection logic for selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (figure 3, page 2 paragraph 14, advertisement referred to as search term used to market advertiser's product in online media marketing (OMM)); a keyword identification system in communication with the advertisement selection logic (figure 2 #40-44), for selecting an initial plurality of candidate keywords (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43, referred to as search terms related to an advertiser's service or product and linked to web site); an advertisement-keyword selection system in communication with the advertisement selection logic and keyword identification system (figure 2 and figure 3 #66-74) for creating an advertisement-keyword pair for each

candidate advertisement selected by the advertisement selection logic and each candidate keyword, (figure 4 #116, page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine);

wherein each advertisement-keyword pair includes one or more keywords of the expanded plurality of candidate keywords resulting from expansion of the initial plurality of candidate by the keyword identification system for estimating a click-through rate for each advertisement-keyword pair (page 3 paragraph 43), and for calculating a return on advertising investment (ROAI) for each advertisement-keyword pair based at least in part on the corresponding estimated click-through rate (page 4 paragraph 44-60); and a bid determination system in communication with the advertisement-keyword selection system (figure 2 and figure 3 #66-74) for calculating an optimized bid for each advertisement-keyword pair created by the advertisement-keyword selection system based at least in part on the corresponding ROAI calculated by the advertisement-keyword selection system (page 4 paragraph 44-60); and for automatically submitting the optimized bids for each advertisement-keyword pair to the competitive bidding process for placement of each candidate advertisement selected by the advertisement selection logic in search results lists generated in response to search queries comprising at least one keyword of the expanded plurality of keywords resulting from expansion of the initial plurality of candidate keywords by the keyword identification system (page 2 paragraph 14 -20, page 3 paragraph 37-39, advertisement-keyword pair

referred to as search term paired with advertiser's listing, for search engine). Skinner does not explicitly disclose expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement selected by the advertisement selection logic, to form an expanded plurality of candidate keywords. However, Paine discloses expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement selected by the advertisement selection logic (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to expand the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement selected by the advertisement selection logic. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claim 42,** Skinner discloses

a) selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-

43, referred to as search terms related to an advertiser's service or product and linked to web site);

b) selecting one or more keywords to optimize the keyword selecting and provide one or more optimized keywords (page 3 paragraph 37);

c) creating an advertisement-keyword pair for each candidate advertisement selected in a) and each optimized keyword selected in b), wherein each advertisement keyword pair includes one or more optimized keywords (page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine;

d) calculating an optimized bid for each advertisement-keyword pair created in c) based at least in part on the one or more optimized keywords selected in b) (page 4 paragraph 44-60); and

e) automatically submitting the optimized bids for each advertisement-keyword pair calculated in d) to the competitive bidding process for placement of each candidate advertisement selected in a) in search results lists generated in response to search queries comprising at least one keyword of the one or more optimized keywords selected in b) (page 2 paragraph 14 -20 and page 3 paragraph 37- page 4 paragraph 60).

Skinner does not explicitly disclose b) selecting one or more keywords based at least in part on content of the at least one candidate advertisement. However, Paine discloses selecting one or more keywords based at least in part on content of the at least one candidate advertisement (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the system of Skinner to select one or more keywords based at least in part on content of the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claim 43,** Skinner discloses wherein the optimized bids calculated in d) are based at least in part on information from the advertiser (page 2 paragraph 14 -20 and page 3 paragraph 37- page 4 paragraph 60).

**Regarding claim 44,** Skinner discloses the at least one candidate advertisement selected is based at least in part on information from the advertiser (page 3 paragraph 37-39). Skinner does not explicitly disclose matching content of each candidate advertisement to one or more candidate keywords, wherein the matching of content is at least partially automated. However, Paine discloses matching content of each candidate advertisement to one or more candidate keywords, wherein the matching of content is at least partially automated (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of

the invention to modify the system of Skinner to select one or more keywords based at least in part on content of the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claim 45**, Skinner discloses optimized keywords are based at least in part on information from the advertiser; and wherein the one or more optimized keywords associated with each advertisement-keyword pair in c) are based at least in part on information from the advertiser (page 3 paragraph 37-39).

**Regarding claim 46**, Skinner discloses collecting information from an advertiser web site associated with the advertisement, wherein the advertiser web site information includes at least web site visits and web site sales (page 3 paragraph 37-43); and determining a return on advertising investment (ROAI) for each advertisement-keyword pair based at least in part from the advertiser web site information, wherein the determined ROAI is considered in calculating the corresponding optimized bid (page 4 paragraph 44-60).

**Regarding claim 47**, Skinner discloses receiving advertisement management information an advertiser via an input device, wherein the advertisement management information is considered in calculating the optimized bids (page 3 paragraph 37- page 4 paragraph 60).

**Regarding claims 48-49**, Skinner discloses collecting information from a keyword search engine that aggregates advertising, associated with the search results list, wherein the keyword search engine information is associated with at least one of current bids for placement of advertisements and previous search queries, and wherein the keyword search engine information is considered in calculating the optimized bids (page3 paragraph 39-40 and page 4 paragraph 44-60).

**Regarding claim 50**, Skinner discloses collecting information from a bidding service provider associated with the search results list, wherein the bidding service provider information is associated with at least one of current bids for placement of advertisements and previous search queries, and wherein the bidding service provider information is considered in calculating the optimized bids in (page3 paragraph 39-43).

**Regarding claim 51**, Skinner discloses collecting information from an advertiser web site associated with the wherein the advertiser web site information is considered in calculating the optimized bids (page3 paragraph 39-40 and page 4 paragraph 44-60).

**Regarding claim 52**, Skinner discloses collecting information from a competitor web site associated with a competitor in relation to the advertiser, wherein the competitor web site information is considered in calculating the optimized bids (page 4 paragraph 48).

**Regarding claim 55**, Skinner discloses calculating the ROAI is based at least in part on historical sales data from sales made on an advertiser's website that are associated with at least one keyword of the expanded plurality of candidate keywords and cost -per click associated with the keyword in order to determine a value of the keyword (page 3 paragraph 40-41 and page 4 paragraph 44-60).

**Regarding claim 56**, Skinner discloses determining that the optimized bid associated with the given advertisement-keyword pair will not win in the competitive bidding process (page 4 paragraph 47). Skinner does not explicitly disclose performing a search query to find alternative keywords similar to the *one* or more keywords associated with the given advertisement-keyword pair. However, Paine discloses performing a search query to find alternative keywords (abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to find optimized bids for alternative keywords in addition to the advertiser's designated keywords. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide



variety of search terms in order to maximize traffic to his site (page 1 paragraph 4).

**Regarding claim 58**, Skinner discloses optimized bids calculated in s) are based at least in part on an aggressiveness setting which optimizes bidding strategy based on sales and visitor data, ROAI, current and historical bidding data (page 5 paragraph 62-68, referred to as premium placement, the bid to top rank a term, and bid for linguistic value).

**Regarding claim 59**, Skinner discloses collecting and analyzing bid information from at least one competitor from a website to determine competitor bid amounts (page 4 paragraph 48). Skinner does not explicitly disclose collecting and analyzing information from at least one competitor's website to select one or more competitor keywords. However, Paine discloses collecting and analyzing information from at least one competitor's website to select one or more competitor keyword (abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to find optimized bids for competitor keywords in addition to the advertiser's designated keywords. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4).

**Claim 60 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication Number 2003/0105677 by Skinner (hereinafter "Skinner ") in view of US Patent Application Publication Number 2003/0055816 by Paine in further view of over US Patent Application Publication Number 2004/0093296 by Phelan et al.**

**Regarding claim 60**, Skinner discloses determining a competitor's bid for a keyword based at least in part on the competition assessment, wherein the optimized bids calculated in g) are based at least in part on competitor bids for competitor keywords related to the one or more candidate keywords for advertisement-keyword pairs for corresponding optimized bids (page 4 paragraph 48). Skinner further discloses calculating a return on advertising investment (ROAI) for each advertisement-keyword pair keyword pair (page 4 paragraph 44-48, referred to as calculated max bid).

Skinner and Paine do not explicitly disclose calculating a competitor ROAI. However, Phelan discloses Calculating and analyzing a customer's ROAI against that of competition (page 8 paragraph 101-106). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner combined with Paine to include competitor ROAI in the bid optimization logic. Information about a competitor is used to develop more effective marketing.

**(10) Response to Argument**

Examiner notes that the combination of the prior art renders obvious the features of the Appellant's independent claims 1 and 57: A server-based method of submitting a plurality of bids to a competitive bidding process for an advertiser for placement of at least one advertisement, the method including: a) selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (Skinner, page 2 paragraph 14); b) selecting an initial plurality of candidate keywords (Skinner, figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43);

, c) expanding the initial plurality of candidate keywords selected in b) based at least in part on the at least one candidate advertisement selected in a) to form an expanded plurality of candidate keywords (Paine page 2 paragraph 13);

d) creating an advertisement-keyword pair for each candidate advertisement selected in a) and each candidate keyword, wherein each advertisement-keyword pair includes one or more keywords of the expanded plurality of candidate keywords resulting from c) (Skinner page 3 paragraph 37-39);

e) estimating a click-through rate for each advertisement-keyword pair created in d) (Skinner page 3 paragraph 43);

f) calculating a return on advertising investment (ROAI) for each advertisement-keyword pair created in d) based at least in part on the

corresponding click-through rate estimated in e) (Skinner page 4 paragraph 44-48, referred to as calculated max bid);

g) calculating an optimized bid for each advertisement-keyword pair created in d) based at least in part on the corresponding ROAI calculated in f) (Skinner page 4 paragraph 44-60); and

h) automatically submitting the optimized bids for each advertisement-keyword pair calculated in g) to the competitive bidding process for placement of each candidate advertisement selected in a) in search results lists generated in response to search queries comprising at least one keyword of the expanded plurality of candidate keywords resulting from c) (Skinner page 2 paragraph 14 -20, page 3 paragraph 37-39).

Examiner notes that the combination of the prior art renders obvious the features of the Appellant's independent claim 31: A server-based apparatus for submitting a plurality of bids to a competitive bidding process for an advertiser for placement of at least one advertisement, the apparatus including: an advertisement selection system for selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (Skinner figure 3, page 2 paragraph 14); a keyword selection system in communication with the advertisement selection system (Skinner figure 2 #40-44),

for selecting an initial plurality of candidate keywords and for expanding the initial plurality of candidate keywords (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43);

based at least in part on the at least one candidate advertisement selected by the advertisement selection system to form an expanded plurality of candidate keywords (Paine page 2 paragraph 13);

an advertisement-keyword selection system in communication with the advertisement selection system and keyword selection system (Skinner figure 2 and figure 3 #66-74);

for creating an advertisement-keyword pair for each candidate advertisement selected by the advertisement selection system, and each candidate keyword (Skinner figure 4 #116, page 3 paragraph 37-39, wherein each advertisement-keyword pair includes one or more keywords of the expanded plurality of candidate keywords resulting from expansion of the initial plurality of candidate keywords by the keyword selection system, for estimating a click-through rate for each advertisement-keyword pair (Skinner page 3 paragraph 43),

and for calculating a return on advertising investment (ROAI) for each advertisement-keyword pair based at least in part on the corresponding estimated click-through rate (Skinner page 4 paragraph 44-60); and a bid determination system in communication with the advertisement-keyword selection system (Skinner figure 2 and figure 3 #66-74);

for calculating an optimized bid for each advertisement-keyword pair created by the advertisement-keyword selection system based at least in part on the corresponding ROAI calculated by the advertisement-keyword selection system (Skinner page 4 paragraph 44-60);

and for automatically submitting the optimized bids for each advertisement-keyword pair to the competitive bidding process for placement of each candidate advertisement selected by the advertisement selection system in search results lists generated in response to search queries comprising at least one keyword of the expanded plurality of keywords resulting from expansion of the initial plurality of candidate keywords by the keyword selection system (Skinner page 2 paragraph 14-20, page 3 paragraph 37-39).

Examiner notes that the prior art of Skinner anticipates the features of the Appellant's independent claim 40: A server-based method of submitting a plurality of bids to a competitive bidding process for an advertiser for placement of at least one advertisement, the method including:

- a) selecting at least one candidate advertisement associated with the advertiser for subsequent placement in at least one publisher web page (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43);
- b) selecting a plurality of candidate publisher web pages, wherein each candidate publisher web page is associated with one or more candidate advertisement selected in a) and includes one or more auctioned advertisement positions (figure 2 #42-44, figure 3 #78, page 1 paragraph 12 and page 3 paragraph 39-40);

- c) creating an advertisement-publisher web page pair for each candidate advertisement selected in a) and each candidate publisher web page selected in b) (figure 2 #42-44, figure 3 #78, page 1 paragraph 12 and page 3 paragraph 39-40);
  - d) estimating a click-through rate for each advertisement-publisher web page pair created in c) (page 3 paragraph 43);
  - e) calculating a return on advertising investment (ROAI) for each advertisement- publisher web page pair created in c) based at least in part on the corresponding click- through rate estimated in d);
  - f) calculating an optimized bid for each advertisement-publisher web page pair created in c) based at least in part on the corresponding ROAI calculated in e) (page 4 paragraph 44-60);
- and
- g) automatically submitting the optimized bids for each advertisement-publisher web page pair calculated in f) to the competitive bidding process for placement of each candidate advertisement selected in a) in at least one publisher web page of the plurality of candidate publisher web pages selected in b) (page 2 paragraph 14 -20).

Examiner notes that the combination of the prior art renders obvious the features of the Appellant's independent claim 42:

- a) selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (Skinner figure

2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43);

b) selecting one or more keywords based at least in part on content of the at least one candidate advertisement selected (Paine page 2 paragraph 13) in a) to optimize the keyword selecting and provide one or more optimized keywords (Skinner page 3 paragraph 37);

c) creating an advertisement-keyword pair for each candidate advertisement selected in a) and each optimized keyword selected in b), wherein each advertisement keyword pair includes one or more optimized keywords (Skinner page 3 paragraph 37-39);

d) calculating an optimized bid for each advertisement-keyword pair created in c) based at least in part on the one or more optimized keywords selected in b) (Skinner page 4 paragraph 44-60); and

e) automatically submitting the optimized bids for each advertisement-keyword pair calculated in d) to the competitive bidding process for placement of each candidate advertisement selected in a) in search results lists generated in response to search queries comprising at least one keyword of the one or more optimized keywords selected in b) (Skinner page 2 paragraph 14 -20 and page 3 paragraph 37- page 4 paragraph 60).

On pages 14-19 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: 1. Independent Claim 1 is Directed to a Statutory Process....(page 15) ... Under the machine-or-transformation test, Appellants respectfully



submit that claim 1 is both tied to a machine and transforms the underlying subject matter of claims 1, 31, 40, 42

Examiner notes that "automatically" can be interpreted to mean by a human being by rote memory, as a "system" is not mandated to be hardware. Each instant step of the instant method can be performed by a human being, such as optimizing a bid using an abacus. The standard of " instant critical method steps to be performed BY a computer", in this case, are not met, as no use of a computer is mandated by the claims. The examiner has previously recommended to the Applicant to explicitly claim that an apparatus includes a computer.

Statutory Transformation, without a tie to a particular machine, is not mandated in the instant claims, as bids are written down and changed on a piece of paper or in a database.

Further, 101 rejection arguments by Applicant are moot, as Examiner has properly rejected every claim with prior art 102 and 103 rejections.

On pages 19 and 39 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner for disclosure of claim 40. This § 102 rejection of claim 1 in reliance on Skinner is in error on any one of at least four grounds because Skinner does not disclose or fairly suggest the features claimed in elements a), c), f), or g).... Applicant argues that "the Office Action relies on Webster's Dictionary definition of "advertisement" as a

"public notice." This reasoning appears to presume that each keyword displayed by a search engine is a public notice; therefore, the Office Action appears to conclude that each keyword (e.g., Skinner search term) displayed by a search engine is an advertisement (e.g., candidate advertisement of element a) in claim 40). However, this reasoning is flawed because it is not appropriate to substitute all types of "public notice" (e.g., "search term" from Skinner) for "advertisement." For example, all types of "public notice" would include public notices that were derogatory or negative to the corresponding advertiser along with public notices that were favorable or positive" and "search terms would have to be described as "promotional or persuasive" in Skinner to be substituted for the "advertisement" in element a) of claim 40. Accordingly, it is not appropriate to substitute "search term" for "advertisement" in the phrase "selecting at least one candidate advertisement" .

Examiner notes that a reasonably broad interpretation of advertisement should include a keyword displayed by a search engine such as Google.com or Yahoo.com. The Applicant's argument for negative or positive type of advertisement has no bearing on the interpretation of advertisement. The Examiner believes that the keyword "ibm computer" could be positive, negative, or neutral, and still be an advertisement for "ibm computer". Likewise, the keyword "Horrible IBM computer ", while appearing to be negative, is still an advertisement, and might attract customers, or might be good advertising for IBM's competitors. The

business method of Skinner discloses search term advertisement publisher web page pairs related to an advertiser's service or product and linked to a web site, for placement in multiple search engine web pages. Each keyword or search term displayed by a search engine such as Google.com or Yahoo.com is an advertisement. For example, the search term "IBM", "www.ibm.com", and each page, or any part viewed by a consumer, is an advertisement for IBM corporation. "IBM" as a keyword, linked or unlinked to IBM.com is also an advertisement for IBM corporation. The Examiner maintains that a link to an advertiser's web site can be reasonably broadly interpreted as an advertisement, and that the web ranking system of Skinner displays keyword advertisement pairs.

On page 21-22 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not refer to the maximum bid as an optimized bid.

Examiner notes that Skinner discloses a calculated optimized maximum bid using Maximum Return on Advertising Investment ROAI, for placement of search term advertisements related to an advertiser's service or product and linked to a web site, for placement in multiple search engine web pages. The maximized bid is considered optimized to win and optimized for Maximum Return on Advertising Investment. (ROAI).

On page 22 and 23 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: the winning advertiser's listing in Skinner is merely a link to an advertiser's web site. Skinner does not disclose or fairly suggest selection of the advertisement as part of the bidding process.

Examiner notes that the cited section of Skinner is believed to teach this element, by disclosing selecting search term advertisements related to an advertiser's service or product and linked to web site, for placement in multiple search engine web pages. A link is pairing. A web link, as in a button to click that says "IBM" is also an advertisement for a web page, as discussed above.

On page 25 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: the cited portions of Paine do not disclose or fairly suggest expanding selected keywords as recited in element c) of claim 1. Rather, the cited portions of Paine involve the initial selection of initial keywords. Further, the cited portions of Paine do not disclose or fairly suggest expanding selected keywords based on a selected candidate advertisement as recited in element c) of claim 1. Namely, the Office Action fails to provide any citation for disclosure of keyword expansion on the basis of an advertisement.

Examiner notes that the cited section of Paine discloses expanding the initial plurality of candidate advertisement keyword for each selected

advertisement keyword pairs based at least in part on the at least one candidate advertisement. Paine's method use spydering and collaborative filtering to find additional keywords, based in initial keywords, so the list is expanded.

On pages 26 and 40-41 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: the Skinner process does not consider an actual advertisement to be placed in the search results list as a variable in calculating a bid during the bidding process.

Examiner notes that the cited section of Skinner is believed to teach the element in claim 1 g), by disclosing an automated web ranking system (para 37), selecting, creating, and optimizing bids of advertisement-keyword pairs in search results lists.

On pages 26 and 40 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: cited portions of Paine do not disclose or fairly suggest generating any keyword based on the content of a candidate advertisement as recited in claim 6. Namely, the Office Action fails to provide any citation for disclosure of keyword selection on the basis of an advertisement.

Examiner notes that . the cited section of Paine discloses generating candidate keywords based at least in part on the at least one candidate

advertisement. Paine's method use spydering and collaborative filtering to find additional keywords, based on a web site, which is an advertisement.

On page 28 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not estimate the click-through rate for a candidate advertisement or a candidate keyword, much less an advertisement keyword pair. Moreover, Skinner does not place a candidate advertisement in a search results list on a trial basis.....Skinner does not estimate the click-through rate for a candidate advertisement or a candidate keyword, much less estimating a click-through rate based on the relevance of a candidate advertisement to a candidate keyword for an advertisement-keyword pair.

Examiner notes that the cited section of Skinner is believed is believed to teach this element , by disclosing the click-through rates calculated by day month, or year, broadly reasonably interpreted to be a trial, and not permanent. If the ROAI is not acceptable, the advertisement-keyword pair is removed, its trial then over. Skinner tracks and uses non ROAI click-through rates, and an acceptable number of user actions, a measure of relevance of the advertisement, as user interest can be as valuable as product sales to a corporation's stock price or market capitalization.

On page 29 and 37 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not consider an experience level in a user in conjunction with calculating a bid.

Examiner notes that the cited section of Skinner is believed is believed to teach this element , by disclosing the tracked click-through rates, and prior visits and purchases from advertiser web site, thus the bids and rankings of the keywords are based on the level of the user's experience.

On page 30 and 38 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not sort bids by a product of the click-through rate and ROAI or place insertions based on such sorted bids.

Examiner notes that the cited section of Skinner is believed is believed to teach this element , by disclosing the bids are sorted by the maximum bid for each keyword advertisement which equals a product of the click-through rate and ROAI, as Skinner refers to as ROAS in (para. 44), amount of sales dived by cost, which is equal to the product of click-through rate and ROAI.

On page 31 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: the Office Action fails to provide any citation for disclosure of keyword selection on the basis of a competitor's web site.

Examiner notes that the cited section of Paine discloses assessing competitors web sites for keyword to select.

On page 34-37 of the Appellant's Appeal Brief dated 4/22/11, Appellant arguments regarding claim 31 are addressed under claim 1, 40, and 57 arguments.

Examiner notes that the broadest reasonable interpretation of Claim 31 limitation "advertisement-keyword pair", Claim 40 limitation "advertisement- publisher web page pair", and Claim 1 and 57 limitation "advertisement-keyword pair", is a keyword search term paired with advertiser's listing, for search engine, as disclosed by Skinner and Paine. Paine gives a good example in Figure 7 #720, to help explain the Examiner's interpretations, showing a listing that is returned to the web searcher , who searches for a keyword "zip drives", and advertisement keyword publisher web page pairs are ranked and displayed based on bids. Each keyword or search term displayed by a search engine such as Google.com or Yahoo.com is an advertisement. For example, the search term "IBM", "www.ibm.com", and each page, or any part viewed by a consumer, is an advertisement for IBM corporation. "IBM" as a keyword, linked or unlinked to IBM.com is also an advertisement for IBM corporation. The Examiner maintains that a link to an advertiser's web site can be reasonably broadly interpreted as an advertisement, and that the web ranking system of Skinner displays keyword advertisement pairs.



On page 42 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not use the content of an advertiser web site as criteria for maintaining the database. Moreover, Skinner does not disclose that advertisements are stored in the database or selected based on information maintained in the database.

Examiner notes that the limitation of "maintaining the database" is not required by the claim, which reads " The method as set forth in claim 42 wherein the at least one candidate advertisement selected in a) is based at least in part on information from the advertiser and matching content of each candidate advertisement to one or more candidate keywords, wherein the matching of content is at least partially automated". This argument is moot. The cited section of Skinner discloses candidate advertisements selected based at least in part on information from the advertiser as the advertiser provides information such as search terms and web pages.

On page 42 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not disclose collecting information from a bidding service provider.

Examiner notes that the cited section of Skinner is believed to teach this element by disclosing calculating bids of placement of search terms

related to an advertiser's service or product and linked to a web site, for placement in for placement in multiple search engine web pages. The system of Skinner acts as a bidding service provider, providing the service of optimizing bids.

On page 43 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Skinner does not disclose collecting information from a competitor web site. Moreover, Skinner does not disclose using competitor web site information in calculating optimized bids.

Examiner notes that the cited section of Skinner (para 48) discloses system then logs into the advertiser's OMM account to determine competitor's bid amounts 74. The system can obtain competitor bid information, including the ranking, URL, and cost per click of the competitor, and use this information for bidding.

On page 44 of the Appellant's Appeal Brief dated 4/22/11, Appellant states: Phelan does not disclose calculating the effectiveness of competitor keyword advertising or a competitor ROAI for a competitor keyword as recited in claim 60.

Examiner notes that the cited section of Phelan discloses calculating and analyzing a customer's ROAI against that of competition, giving examples of using price/promotion, sales profits, and advertising dollars.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer however, U.S. Application Serial No. 10741336 , which contains a common detailed description with the above-identified patent application, is also on appeal.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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